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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,241	01/09/2007	Heinz Riess	306.46102X00	6951
20457 7590 11/19/2009 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			EXAMINER TILLMAN, JR, REGINALD S	
			ART UNIT 3641	PAPER NUMBER
			MAIL DATE 11/19/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,241	<b>Applicant(s)</b> RIESS ET AL.	
	<b>Examiner</b> REGINALD TILLMAN, JR	<b>Art Unit</b> 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-8 and 14-23 is/are allowed.
- 6) ☒ Claim(s) 2 and 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/7/09</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 9-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billings (US 40,153) in view of Blanco (US 4,301,733).

**Re claims 2, 9, and 11**, Billings teaches a shotgun-barrel projectile (Figs 1-5) comprising a projectile (A) and an intercalation (B), the projectile exhibiting a cylindrical free space on its underside, and the intercalation taking the form of a plunger (Fig 3) at its end facing towards the projectile, a radially outer surface of the plunger having a diameter adapted to a radially inner surface of the free space, characterized in that the projectile and the plunger are mounted so that before firing the plunger is not wedged in the free space and the plunger is pushed into the free space and wedged in the free space in the course of firing so that the radially outer surface of the plunger abuts the radially inner surface of the free space (para 0004; 0008), and in that a nose of the projectile merges, via a bevel with an adjoining shoulder running parallel to the axis of symmetry (Fig 1); wedging elements (surfaces of (a) and (d)). Billings does not teach a cartridge case, but it is commonly known in the art that projectiles of this type are packaged in a cartridge case. A cartridge case allows for packaging the projectile and the propellant into one compact unit. Therefore, it would have been obvious for one

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skilled in the art to modify Billings to have a cartridge case to allow for packaging the projectile and a propellant into one compact unit.

Billings also does not teach a plane face running perpendicular to the axis of symmetry. Blanco teaches a projectile having a plane face (Figs 3, 9) running perpendicular to the axis of symmetry and extending as far as the outer periphery of the projectile. Having a plane face perpendicular to the axis of symmetry affects the penetrability of the projectile into a target. Therefore, it would have been obvious for one skilled in the art to modify Billings to include a plane face to affect the penetrability of the projectile into a target.

**Re claims 10 and 13**, Billings applies as recited in claim 1, but does not teach that the intercalation consists of a plastic material and the projectile consists of a readily deformable material, or that the projectile comprises lead. However, it would have been obvious for one skilled in the art to modify these materials since it has been previously held that the selection of a known material based on its suitability for its intended use supports a prima facie obviousness determination. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Billings (US 40,153) in view of Blanco (US 4,301,733) as applied to claim 11 above and further in view of Maki (US 4,587,905).

**Re claim 12**, Billings as combined with Blanco teaches the projectile of claim 12, but does not teach that the upper end of the cartridge case is retracted by 180 degrees

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and rests on the plane face. Maki teaches a case retracted inwards 180 degrees (Fig 4, 15). It would have been obvious for one skilled in the art to modify the case as taught in claim 11 to have a retracted case to prevent the projectile from coming out of the case (c. 3, l. 67-68).

### ***Allowable Subject Matter***

4. Claims 3-8 and 14-23 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter: The most relevant prior art (Billings US 40,153) teaches a projectile and an intercalation that is wedged in the course of firing, but does not teach, and is not obvious either alone or combination that the wedging elements include a hollow cylindrical design of the end of the projectile spigot facing towards the intercalation, the underside of the projectile spigot exhibiting an inwardly inclined bevel, the bore in the plunger exhibiting a hemisphere arranged at the bottom, and a diameter reduction being arranged on the wall of the bore above the hemisphere; nor that a ring is connected to the plunger on the outer periphery of the plunger via a predetermined breaking-point.

### ***Response to Arguments***

6. Applicant's arguments filed 7/7/09 have been fully considered but they are not persuasive. In regards to applicant's argument that Billings is not designed for fitting into a cartridge and that Billings teaches away from a cartridge case (pg 11, para 2), the examiner disagrees. Although Billings does not teach a cartridge case, it is commonly

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known in the art that projectiles of this type are packaged in a cartridge case. A cartridge case allows for packaging the projectile and the propellant into one compact unit. Since the cartridge stays in the gun, the operation of the projectile lubricating the barrel after its fired and leaves the cartridge would not be impeded. Furthermore, Billings as modified to have a cartridge case would still be capable of filling the grooves of the gun since all projectiles (e.g. sabots) fired from a shotgun cartridge necessarily fill the grooves of the gun.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REGINALD TILLMAN, JR whose telephone number is

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(571) 270-7010. The examiner can normally be reached on Monday to Friday 730 to 400.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Carone/  
Supervisory Patent Examiner, Art Unit 3641

/REGINALD TILLMAN, JR/  
Examiner, Art Unit 3641

11-17-09